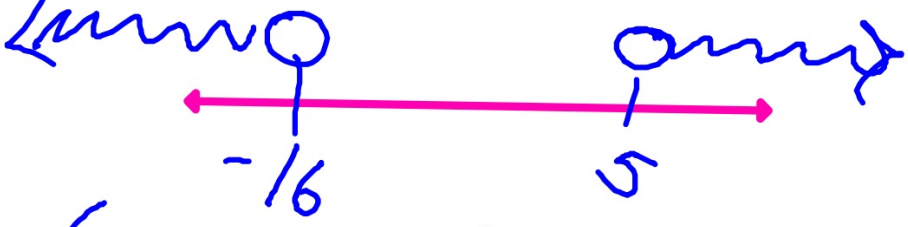
Warm Up: 9/27/12

Solve, Graph, Interval Notation:

$-\frac{3}{8}x > 6\left(-\frac{8}{3}\right)$ or $\frac{5x}{5} > \frac{25}{5}$

$x < -16$ or $x > 5$



$(-\infty, -16) \cup (5, \infty)$

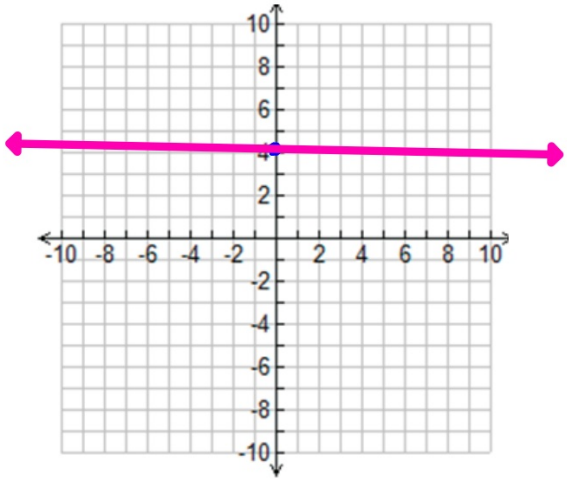
Horizontal vs. Vertical:

Horizontal line: has a slope=0 $y=\#$

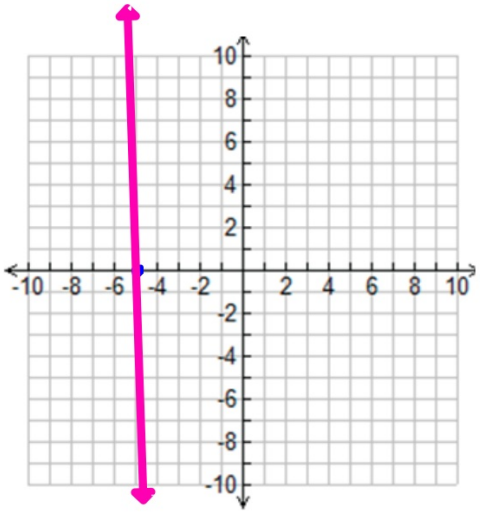
Vertical line: slope = undefined $x=\#$

Graph each line:

(e) $y = 4$

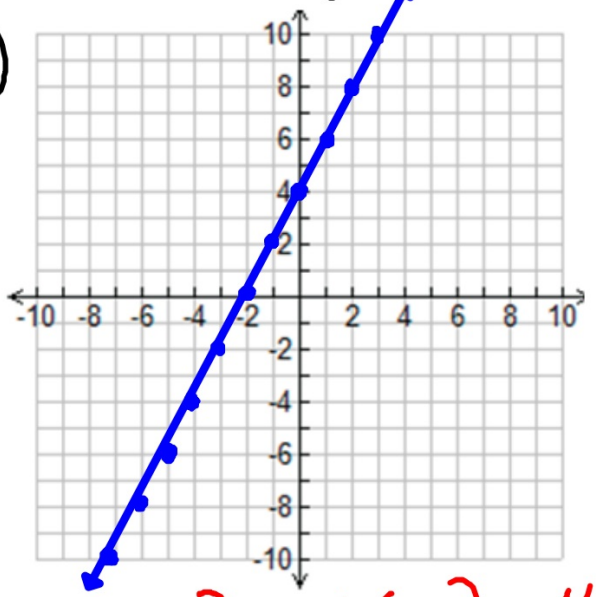


(f) $x = -5$



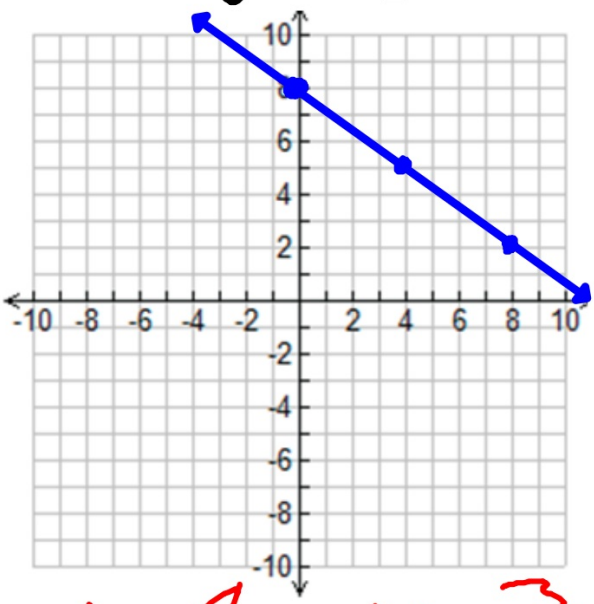
Find the equation of each line graphed:

(a)



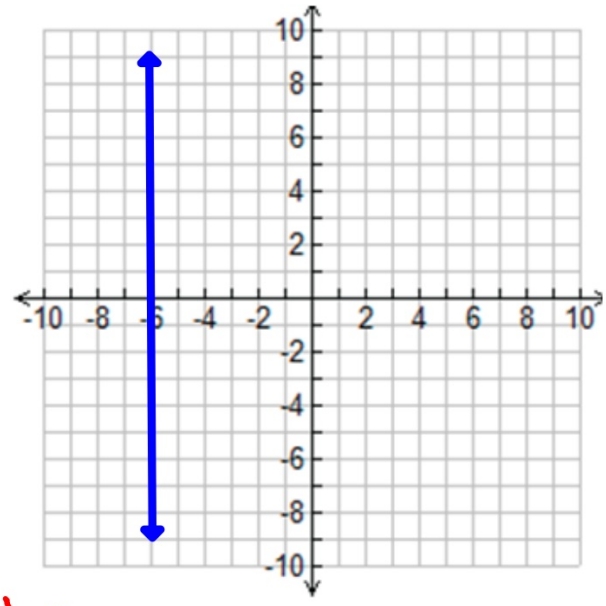
$m = \frac{2}{1}$ $b = 4$ $y = 2x + 4$

(b)



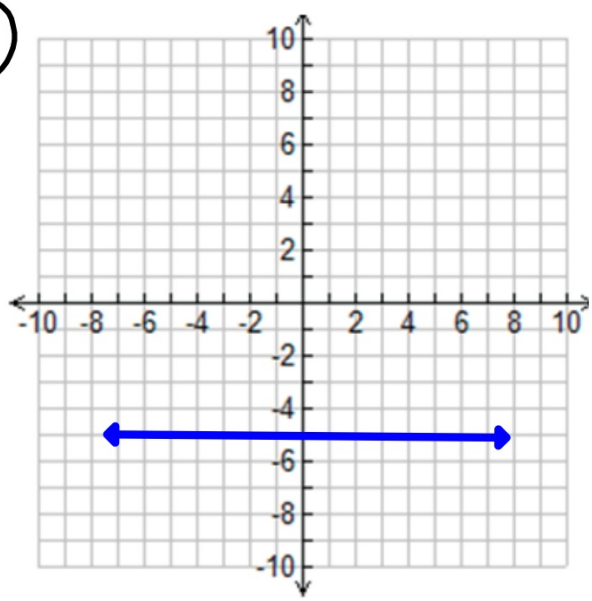
$b = 8$ $m = \frac{3}{4}$ $y = -\frac{3}{4}x + 8$

(c)



$X = -6$

(d)



$Y = -5$

Writing Equations of lines:

Point-slope form: $y - y_1 = m(x - x_1)$

@ $m = \frac{1}{5}$ pt = $(\overset{x_1}{5}, \overset{y_1}{-3})$

$$y - (-3) = \frac{1}{5}(x - 5)$$

$$y + 3 = \frac{1}{5}x - 1$$

$$-3 \qquad -3$$

$$\boxed{y = \frac{1}{5}x - 4}$$

(b) $m = \frac{3}{4}$ pt $(-8, 5)$

$y - 5 = 3/4(x + 8)$

$y - 5 = 3/4x + 6$

$+5 \qquad +5$

$y = 3/4x + 11$

✱ Write the equation of a line given 2 points:

@ $(\overset{x_1}{3}, \overset{y_1}{2})$ and $(\overset{x_2}{5}, \overset{y_2}{8})$

$$m = \frac{8-2}{5-3} = \frac{6}{2} = \frac{3}{1} \text{ or } 3$$

$m = 3$

$(3, 2)$

Homework: 9/27/12

Pg. 86

#11 - #21

odd